

10/618,111

CLAIMS:

1 - 19. (cancelled).

20. (new) A method of increasing the thermal conductivity of an electrically insulating epoxy material without compromising the electrical insulating properties of the material, the method comprising:

mixing an LCT-epoxy resin comprising a crystalline microstructure having a layered nature with an anhydriding agent and a boehmite material under conditions adequate to form a uniform dispersion and essentially complete co-reactivity of the boehmite material with the LCT-epoxy resin to form a mixture; and

curing the mixture with a zinc naphthenate accelerator to produce homogeneous alumoxane-LCT-epoxy polymers that retain the layered nature of the LCT-epoxy resin and that exhibit a dielectric strength of at least 1.2 kV/mil while at the same time exhibiting thermal conductivity of at least 0.50 W/mK in a transverse direction and at least 0.99 W/mK in a thickness direction in an environment of 25°C.

21. (new) A homogeneous alumoxane-LCT-epoxy polymer produced by the method of claim 20 and comprising a crystalline microstructure having a layered nature and exhibiting a dielectric strength of at least 1.2 kV/mil while at the same time exhibiting thermal conductivity of at least 0.50 W/mK in a direction transverse to layers of the microstructure and at least 0.99 W/mK in a thickness direction across the layers of the microstructure in an environment of 25°C.